



SAFETY HEALTH AND
ENVIRONMENTAL AFFAIRS

MAY 06 1993

ORIGINAL

MATERIAL SAFETY DATA SHEET

PRODUCT

NALCO 2810

Emergency Telephone Number

Medical (708) 920-1510 (24 hours)

SECTION 1 PRODUCT IDENTIFICATION

TRADE NAME: NALCO 2810

DESCRIPTION: A blend of substituted isothiazolinone and diatomaceous earth

NFPA 704M/HMIS RATING: 3/3 HEALTH 1/1 FLAMMABILITY 0/0 REACTIVITY 0 OTHER
0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

SECTION 2 HAZARDOUS INGREDIENTS

Our hazard evaluation has identified the following chemical ingredient(s) as hazardous under OSHA's Hazard Communication Rule, 29 CFR 1910.1200. Consult Section 14 for the nature of the hazard(s).

INGREDIENT(S)	CAS #	APPROX. %
Diatomaceous earth	68855-54-9	40-70
Cristobalite	14464-46-1	0.1-1.0
5-chloro-2-methyl-4 isothiazolin-3-one	26172-55-4	4.3
2-methyl-4-isothiazolin-3-one	2682-20-4	1.3

SECTION 3 PRECAUTIONARY LABEL INFORMATION

DANGER: Corrosive. Causes eye damage and skin burns. May cause allergic skin reaction. May be harmful if inhaled. May be fatal if swallowed or absorbed through the skin. Do not get in eyes, on skin, or on clothing. Wear goggles and face shield and rubber gloves when handling. Avoid breathing vapor or mist. Avoid contamination of food. Do not take internally. Wash thoroughly after handling.

SECTION 4 FIRST AID INFORMATION

EYES: Immediately flush for at least 15 minutes while holding eyelids open if contacted with contents of package. Call a physician at once.

SKIN: Wash thoroughly with soap and water. Remove and wash contaminated clothing before reuse. Call a physician at once.

INGESTION: Do not induce vomiting. Drink promptly a large quantity of egg whites, gelatin solution or if these are not available, drink large quantities of water. Avoid alcohol. Call a physician at once.

INHALATION: Remove to fresh air if contacted with contents of package. Treat symptoms. Call a physician at once. If breathing has stopped, give cardiopulmonary resuscitation (CPR). Administer oxygen. Call a physician at once.



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SECTION 4 FIRST AID INFORMATION

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CAUTION: If unconscious, having trouble breathing or in convulsions, do not induce vomiting or give water.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5 HEALTH EFFECTS INFORMATION

PRIMARY ROUTE(S) OF EXPOSURE: Eye, Skin, Inhalation

From contact with package's contents:

EYE CONTACT: Corrosive to the eyes with possible permanent damage depending on the length of exposure and on the first aid action given.

SKIN CONTACT: Corrosive to the skin, possibly resulting in third degree burns depending on the length of exposure and on the first aid action given. Can be harmful if absorbed. Can cause allergic contact dermatitis in susceptible individuals.

INGESTION: Can be fatal.

INHALATION: Can be corrosive to the mucous membranes and the lungs. Can cause an allergic reaction in susceptible individuals.

SYMPTOMS OF EXPOSURE: A review of available data does not identify any symptoms from exposure not previously mentioned.

AGGRAVATION OF EXISTING CONDITIONS: A review of available data does not identify any worsening of existing conditions.

CANCER EVALUATION: The National Toxicology Program's (NTP) Annual Report On Carcinogens and the International Agency for Research on Cancer (IARC) Monographs have identified the following substance(s): Cristobalite: As a suspect human cancer-causing agent based on limited human evidence but sufficient evidence in experimental animals.

SECTION 6 TOXICOLOGY INFORMATION

TOXICITY STUDIES: Toxicity studies have not been conducted on this product, but studies have been conducted on the active ingredients. The results are shown below.

SKIN SENSITIZATION: The contents of this product are a human sensitizer.



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SECTION 6 TOXICOLOGY INFORMATION

(CONTINUED)

A Guinea pig (Buehler Technique) sensitization study with an induction dosage of 90 ppm of active ingredients followed by a insult of 429 ppm of active ingredients was positive.

A human repeated insult patch study of 6 ppm, 25 ppm, 50 ppm and 100 ppm active ingredients resulted in 0/105, 1/18, 0/96 and 1/104 subjects being sensitized, respectively.

SUBCHRONIC TOXICITY RESULTS: A 90-day dietary study in dogs of 840 ppm of the product's active ingredients resulted in no mortalities or pathological findings. A 90-day dermal study in rabbits of 0.4 mg/kg/day of the product's active ingredients resulted in skin irritation but no other pathological effects.

OTHER TOXICITY RESULTS: A teratology study with rabbits and rats was negative with dosages of active ingredient ranging from 1.5 mg/kg to 15 mg/kg. Mutagenicity results were equivocal. A 30-month skin painting mouse study with applications of 400 ppm of active ingredients three times per week showed no increase tumor frequency over control animals.

SECTION 7 PHYSICAL AND CHEMICAL PROPERTIES

COLOR: Yellow FORM: Non-dusting solid in porous package ODOR: Mild aromatic
SOLUBILITY IN WATER: Completely
SPECIFIC GRAVITY: 0.25 - 0.75 ASTM D-1298
FLASH POINT: Not applicable
PERCENT VOLATILE
BY WEIGHT: 28-32

NOTE: These physical properties are typical values for this product.

SECTION 8 FIRE AND EXPLOSION INFORMATION

FLASH POINT: Not applicable

EXTINGUISHING MEDIA: Not applicable

UNUSUAL FIRE AND EXPLOSION HAZARD: May evolve SO_x and HCl under fire conditions. Containers exposed in a fire should be cooled with water to prevent vapor pressure buildup leading to a rupture. Do not let material evaporate to dryness.



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SECTION 9 REACTIVITY INFORMATION

INCOMPATIBILITY: Avoid contact with strong oxidizers (eg. chlorine, peroxides, chromates, nitric acid, perchlorates, concentrated oxygen, permanganates) which can generate heat, fires, explosions and the release of toxic fumes.

THERMAL DECOMPOSITION PRODUCTS: In the event of combustion CO, CO₂, SO_x, HCl may be formed. Do not breathe smoke or fumes. Wear suitable protective equipment.

SECTION 10 PERSONAL PROTECTION EQUIPMENT

RESPIRATORY PROTECTION: Wear either a disposable dust mask or a cartridge respirator with prefilter or high efficiency cartridge.

VENTILATION: Use general ventilation with local exhaust ventilation if dust is generated from package (see Section 14 for TLV).

PROTECTIVE EQUIPMENT: Wear impermeable gloves, boots, aprons or a slicker suit to avoid skin contact. Chemical goggles and face shield are also recommended. Examples of impermeable gloves available on the market are neoprene, nitrile, PVC, and natural rubber (compatibility studies have not been performed).

The availability of an eye wash fountain and safety shower is recommended.

If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse.

SECTION 11 SPILL AND DISPOSAL INFORMATION

IN CASE OF TRANSPORTATION ACCIDENTS, CALL THE FOLLOWING 24-HOUR TELEPHONE NUMBER (708-920-1510)

SPILL CONTROL AND RECOVERY:

Solid spills: Sweep or vacuum up and reclaim into recovery or salvage drums for disposal. Wear the protective equipment specified in Section 10. Refer to CERCLA in Section 14.

This product is toxic to fish. It should not be directly discharged into lakes, ponds, streams, waterways or public water supplies.

DISPOSAL: If this product becomes a waste, it meets the criteria of a hazardous waste as defined under the Resources Conservation and Recovery Act (RCRA) 40 CFR 261. Hazardous Waste D002.



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SECTION 11 SPILL AND DISPOSAL INFORMATION

(CONTINUED)

As a hazardous solid waste, it must be disposed of in a licensed Hazardous Waste Treatment, Storage and Disposal facility in accordance with local, state, and federal regulations.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Outer container may be disposed of in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Plastic packet must be disposed of according to pesticide disposal instructions.

USED PRODUCT DISPOSAL: If the product applicator packet is removed from the system after three days of use, it will consist of the plastic packet, diatomaceous earth and a non-hazardous level of product. It may be disposed of in a sanitary landfill unless prohibited by state and local authorities. If the packet is removed in less than three days, it should be considered hazardous waste and be treated with a decontamination solution.

SECTION 12 ENVIRONMENTAL INFORMATION

AQUATIC DATA: Results below are based on the active ingredients.

6 day static acute LC50 to Bluegill Sunfish = 0.54 ppm

6 day dynamic acute LC50 to Fathead Minnow = 0.12 ppm

48 hour acute LC50 to Daphnia Magna = 0.13 - 0.18 ppm

6 day dynamic acute LC50 to Rainbow Trout = 0.14 ppm

96 hour static acute LC50 to Sheepshead minnow = 0.3 ppm

OTHER STUDIES: Avian species:

Results below are based on the active ingredients.

Acute oral LD50 to Bobwhite Quail = 97 mg/kg

8 day dietary LC50 to Bobwhite Quail = Greater than 560 ppm



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SECTION 12 ENVIRONMENTAL INFORMATION

(CONTINUED)

8 day dietary LC50 to Pekin Duck = Greater than 560 ppm

If released into the environment, see CERCLA in Section 14.

SECTION 13 TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME/HAZARD CODE - CORROSIVE SOLID, N.O.S.
CORROSIVE MATERIAL UN 1759
CONTAINS - 5-CHLORO-2-METHYL-4-
ISOTHIAZOLIN-3-ONE

SECTION 14 REGULATORY INFORMATION

The following regulations apply to this product.

FEDERAL REGULATIONS:

OSHA'S HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:

Based on our hazard evaluation, the following ingredients in this product are hazardous and the reasons are shown below.

5-chloro-2-methyl-4 isothiazolin-3-one - Corrosive, sensitizer

2-methyl-4-isothiazolin-3-one - Corrosive, sensitizer

Cristobalite - Cancer hazard based on tests with laboratory animals (refer to Section 5)

5-chloro-2-methyl-4 isothiazolin-3-one = TWA 0.1 mg/m³, STEL 0.3 mg/m³ TLV
Manufacturer's recommendation

Cristobalite = TWA 0.05 mg/m³ (respirable dust) ACGIH/TLV

Diatomaceous earth = TWA 10 mg/m³ (total dust) ACGIH/TLV

Cristobalite = TWA 0.05 mg/m³ (respirable dust) OSHA/PEL

Diatomaceous earth = TWA 6 mg/m³ OSHA/PEL

CERCLA, 40 CFR 117, 302:

Notification of spills of this product is not required.

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986
(TITLE III) - SECTIONS 302, 311, 312 AND 313:

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):

This product does not contain ingredients listed in Appendix A and B as an Extremely Hazardous Substance.



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SECTION 14 REGULATORY INFORMATION

(CONTINUED)

SECTIONS 311 and 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370):
Our hazard evaluation has found this product to be hazardous. The product should be reported under the following EPA hazard categories:

XX Immediate (acute) health hazard
XX Delayed (chronic) health hazard
-- Fire hazard
-- Sudden release of pressure hazard
-- Reactive hazard

SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372):
This product does not contain ingredients on the List of Toxic Chemicals.

TOXIC SUBSTANCES CONTROL ACT (TSCA):
The active ingredients are exempted under TSCA and regulated under FIFRA as follows. All the inert ingredients are found on the TSCA Master Inventory List.

FEDERAL INSECTICIDE, FUNGICIDE AND RODENTICIDE ACT (FIFRA):
EPA Reg. No. 707-171-1706
This product is registered for use as a microorganism control chemical used in industrial recirculating cooling water tower systems, air washer systems, brewery pasteurizers and can warmers.
In all cases follow instructions on the product label.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), 40 CFR 261 SUBPART C & D:
Consult Section 11 for RCRA classification.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15
(formerly Sec. 307), 40 CFR 116 (formerly Sec. 311):
None of the ingredients are specifically listed.

CLEAN AIR ACT, Sec. 111 (40 CFR 60), Sec. 112 (40 CFR 61, 1990 Amendments):
This product does not contain ingredients covered by the Clean Air Act.

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65:
This product does not contain any chemicals which require warning under California Proposition 65.

MICHIGAN CRITICAL MATERIALS:
This product does not contain ingredients identified on the Michigan



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SECTION 14 REGULATORY INFORMATION

(CONTINUED)

Critical Materials Register.

STATE RIGHT TO KNOW LAWS:

This product is a registered biocide and is exempt from State Right To Know Laws.

SECTION 15 ADDITIONAL INFORMATION

Note: Other toxicological results are available upon request.

SECTION 16 USER'S RESPONSIBILITY

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to ensure safe workplace operations. Please consult your local sales representative for any further information.

SECTION 17 BIBLIOGRAPHY

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